

1  
00:00:07,490 --> 00:00:14,429  
your guide to constellations deep-sky

2  
00:00:10,730 --> 00:00:19,070  
objects planets and events tonight's sky

3  
00:00:14,429 --> 00:00:19,070  
highlights of the July sky

4  
00:00:36,579 --> 00:00:42,649  
as the sky grows darker Saturn and Mars

5  
00:00:40,340 --> 00:00:44,859  
begin to slip closer to the western

6  
00:00:42,649 --> 00:00:44,859  
horizon

7  
00:00:51,899 --> 00:00:57,058  
glimpse them through a telescope before

8  
00:00:54,340 --> 00:00:57,059  
they set

9  
00:01:16,930 --> 00:01:27,070  
the summer night sky is filled with a

10  
00:01:19,359 --> 00:01:29,650  
treasure chest of bright jewels Scorpius

11  
00:01:27,069 --> 00:01:32,289  
is a striking constellation one of the

12  
00:01:29,650 --> 00:01:36,040  
few that distinctly resembles the object

13  
00:01:32,290 --> 00:01:39,520  
after which it was named the scorpion is

14  
00:01:36,040 --> 00:01:42,900  
easy to trace in the sky its head curved

15  
00:01:39,519 --> 00:01:46,420  
tail and venomous stinger are prominent

16  
00:01:42,900 --> 00:01:49,478  
at the Scorpions heart lies a reddish

17  
00:01:46,420 --> 00:01:54,099  
star its color closely resembles that of

18  
00:01:49,478 --> 00:01:56,799  
Mars known to the Greeks as Ares ancient

19  
00:01:54,099 --> 00:02:00,250  
Greek stargazers contemplating these two

20  
00:01:56,799 --> 00:02:07,390  
crimson objects named the star Antares

21  
00:02:00,250 --> 00:02:09,429  
which means rival of Ares a prominent

22  
00:02:07,390 --> 00:02:13,000  
lovely globular cluster in small

23  
00:02:09,429 --> 00:02:17,830  
telescopes m4 lies just to the right of

24  
00:02:13,000 --> 00:02:20,439  
Antares in Scorpius globular clusters

25  
00:02:17,830 --> 00:02:23,080  
are collections of hundreds of thousands

26  
00:02:20,439 --> 00:02:25,949  
of closely packed and gravitationally

27  
00:02:23,080 --> 00:02:25,950  
bound stars

28  
00:02:48,650 --> 00:02:53,840  
the center of our galaxy lies in the

29

00:02:51,659 --> 00:02:59,069  
direction of the great constellation

30  
00:02:53,840 --> 00:03:02,430  
Sagittarius the Archer this area of the

31  
00:02:59,069 --> 00:03:07,400  
sky overflows with stars globular star

32  
00:03:02,430 --> 00:03:07,400  
clusters and bright and dark nebulae

33  
00:03:08,360 --> 00:03:13,920  
look for Sagittarius by finding the

34  
00:03:11,280 --> 00:03:17,580  
group of stars commonly known as the

35  
00:03:13,919 --> 00:03:20,969  
teapot the handle top and spout are easy

36  
00:03:17,580 --> 00:03:25,310  
to find under dark skies the Milky Way

37  
00:03:20,969 --> 00:03:28,530  
seems to rise out of the teapots spout

38  
00:03:25,310 --> 00:03:31,469  
many deep sky targets reside in this

39  
00:03:28,530 --> 00:03:33,629  
area of the summer night sky a quick

40  
00:03:31,469 --> 00:03:38,939  
glance with binoculars reveals some

41  
00:03:33,629 --> 00:03:41,939  
spectacular objects the Lagoon nebulas

42  
00:03:38,939 --> 00:03:44,609  
gas and dust is brilliantly illuminated

43  
00:03:41,939 --> 00:03:47,659

by the energy of the hot young stars

44

00:03:44,610 --> 00:03:47,660  
inside it

45

00:03:55,629 --> 00:04:01,030  
in the three lobed tri Fed nebula dark

46

00:03:58,750 --> 00:04:04,530  
dust lanes appear edged against the

47

00:04:01,030 --> 00:04:04,530  
radiance of glowing gas

48

00:04:13,009 --> 00:04:19,250  
the Omega nebula glows brightly but we

49

00:04:16,250 --> 00:04:24,439  
cannot see its hottest stars embedded

50

00:04:19,250 --> 00:04:29,199  
deep inside infrared telescopes peering

51

00:04:24,439 --> 00:04:29,199  
through the gas and dust can detect them

52

00:04:32,500 --> 00:04:37,819  
m22 one of the brightest globular

53

00:04:35,089 --> 00:04:40,399  
clusters in the sky is visible to the

54

00:04:37,819 --> 00:04:44,180  
naked eye it is a relatively nearby

55

00:04:40,399 --> 00:04:47,109  
globular cluster only about 10,000 light

56

00:04:44,180 --> 00:04:47,110  
years distant

57

00:05:02,910 --> 00:05:08,380  
before sunrise Venus appears in the

58  
00:05:05,949 --> 00:05:12,699  
morning rising grandly out of the

59  
00:05:08,379 --> 00:05:14,769  
eastern horizon elusive mercury joins

60  
00:05:12,699 --> 00:05:17,500  
Venus during the middle of the month

61  
00:05:14,769 --> 00:05:20,159  
making a brief appearance just before

62  
00:05:17,500 --> 00:05:20,160  
the Sun rises

63  
00:05:35,418 --> 00:05:41,609  
the annual Delta a queried meteor shower

64  
00:05:38,699 --> 00:05:45,030  
peaks on the night of July 28th to the

65  
00:05:41,610 --> 00:05:48,150  
29th watch for meteors radiating from

66  
00:05:45,029 --> 00:05:51,179  
the southeast after midnight expect to

67  
00:05:48,149 --> 00:05:58,049  
see up to 20 small yellowish meteors per

68  
00:05:51,180 --> 00:06:00,168  
hour the night sky is always a celestial

69  
00:05:58,050 --> 00:06:00,169  
showcase

70  
00:06:01,759 --> 00:06:06,259  
explore its wonders from your own

71  
00:06:04,110 --> 00:06:06,259  
backyard

72

00:06:23,560 --> 00:06:25,620

you